R. J. & R. N. WHITE.

CAR-COUPLING.

No. 188,996. Patented March 27, 1877.

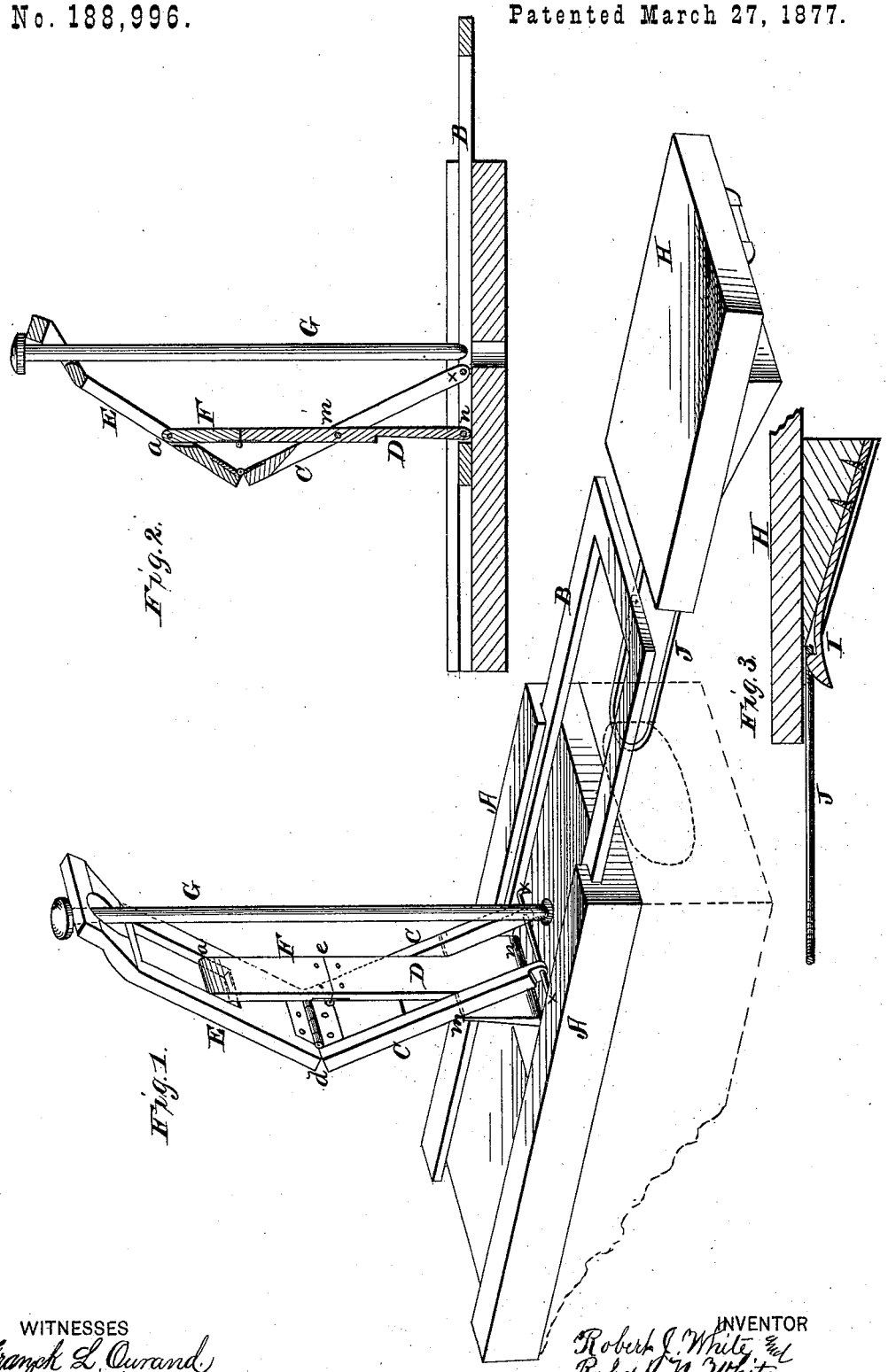

Fig. 2.

Fig. 3.

Fig. 1.

WITNESSES

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ROBERT J. WHITE AND ROBERT N. WHITE, OF WASHINGTON, PA.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **188,996**, dated March 27, 1877; application filed February 19, 1877.

To all whom it may concern:

Be it known that we, ROBERT J. WHITE and ROBERT N. WHITE, of Washington, in the county of Washington, and in the State of Pennsylvania, have invented certain new and useful Improvements in Car-Coupling; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the construction and arrangement of a device to be used with the bumpers of cars for the coupling of same, as will be hereinafter more fully set forth.

To enable others skilled in the art to make and use our invention, we will now proceed to describe its construction and operation.

In the accompanying drawings, making part of this specification, Figure 1 represents a perspective of our invention; Fig. 2, a longitudinal section, and Fig. 3 a section of one portion.

In the figures, A represents a grooved frame, which is intended to be placed and secured upon the platform of cars, and over the bumper. B represents a slide-frame, which fits into, and which works longitudinally in, the grooves in the frame A.

C, D, E, and F represent four bars, which are hinged and pivoted together, and to the frame and slide, as will be described.

The bar C is pivoted at its lower end, at *x*, to the frame A, and at its upper end it is hinged to the bar E, at *d*. The bar D is pivoted at its lower end to the slide B, at *n*, and at its upper end it is hinged to the bar F, at *e*, said bar F being pivoted in a slot or opening in the bar E, at *a*.

The bar D passes through an opening in bar C, and is pivoted to same at *m*.

By this arrangement it will be seen that the slide moves all of the bars, both to raise them and to lower them. When the slide is drawn out to its utmost limit the bars C and E will stand at an angle, while the bars D and F will stand in a vertical position, and in line with each other.

When the slide is moved inward it moves the lower end of bar D from the lower end of bar C, and thus causes all of the bars to drop and fold together upon the frame A. By drawing the slide out again the bars are all raised to the position seen in Fig. 1.

The upper end of the bar E is provided with a hole, through which passes the coupling-pin G, the said pin being provided with a head, so that it cannot drop through said hole. The lower end of the pin enters a hole in the frame A, which corresponds with, and is directly over, a hole in the bumper.

This frame, with its attachments, and the pin are upon one of the cars to be coupled, while another device is placed upon the other car for operating it.

The device placed upon the other car is a platform or plate, H, which has secured to its under side a spring, I. The link J is caught between the plate H and the spring I, as seen, and is held in a horizontal position, the pin on this side having first passed through the link.

As the cars to be coupled approach, the end of plate H strikes the end of slide B, and, moving it inward, the bars cause the pin G to descend. The link in the meantime, having entered the end of the bumper, is in position to be caught by the pin as it comes down by the falling of the bars. Thus, the cars are readily coupled without danger to the attendant.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The frame A and slide B, in combination with the bars C, D, E, and F and pin G, the several parts being constructed and operating as and for the purpose set forth.

2. The plate H, with its spring I and the link J, in combination with the slide B and frame A, and their operating mechanism, as and for the purpose specified.

In testimony that we claim the foregoing we have hereunto set our hands this 9th day of February, 1877.

ROBERT J. WHITE.
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Witnesses:
ALVAN DONNAN,
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